REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claims 1, 16, 19, 20, 22, 29, 32, 36, 38 and 44-47 are amended without prejudice or disclaimer.

Priority

The Office Action asserts that neither of the priority documents contain the limitations about monitoring events after receiving the request and based on the monitored events dynamically modifying at least one of the requests for the resources in the compute environment as well as other features. Applicant notes that there are several responses to this. First, Applicant note that there is a comment in the overview of the cluster scheduler in the appendix of the 60/552,653 provisional patent application. For example, Appendix A included on the CD provides a copy of documentation for a cluster scheduler that includes, as is mentioned on page 2, a resource provisioning capability. This allows the scheduler to dynamically modify node attributes including installed software packages and node operating systems to meet current workload needs. These features are implemented via commands in the source code one of which is the MRM-CTL-X command. Applicants respectfully note that the combination of the cluster scheduler documentation as well as the source code provide the necessary support in the priority. Accordingly, Applicant filed source code for the very reason of providing the actual code that includes the functionality recited in the claims. Accordingly, Applicant submits that the priority documents adequately cover these limitations. Further information upon request may be provided from Applicant.

Rejection of Claims 44-46 Under 35 U.S.C. §101

The Office Action rejects claims 44-46 under 35 U.S.C. §101 because the claimed invention is directed to a non-statutory subject matter. Applicant has made minor amendments

to claims 44-46 by reciting a computer readable storage medium and hardware means as well as referencing hardware modules. Accordingly, Applicant submits that this appropriately defines the claims in terms of statutory subject matter. Applicant further notes that the scope of the hardware means and the hardware modules would be known to those of skill in the art in terms of standard hardware components involving computing devices that are controlled by software instructions. Accordingly, Applicant respectfully requests withdrawal of this Section 101 rejection.

Rejection of Claims 16, 20, 22, 25 and 29-37 Under 35 U.S.C. §112

The Office Action rejects claims 16, 20, 22, 25 and 29-37 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has made some minor amendments and shall further explain why the unamended claims comply with 35 U.S.C. §112.

With regards to claim 22, minor amendments are made to this claim but not in the manner suggested in the Office Action. Claim 22 is amended to recite that wherein the migration in space comprising migrating the reservation to resources in a new compute environment that can provide better performance for a job consumed in association with the request for resources.

Applicant notes that this claim complies with Section 112 and would be understood by one of skill in the art. Although the claim still uses the term "that can provide", Applicant notes that this concept involves moving a reservation of resources from one compute environment to a new compute environment. A job associated with that reservation has not yet been submitted to the compute environment and thus, the resources have not yet been consumed. An example of such a situation would be if a reservation is for a compute environment wherein 20 gigabytes of RAM and 2 CPUs are reserved. However, the reservation may be more tailored to the job which

may only need 10 gigabytes of RAM and 4 processors. In this regard, an example associated with this claim would be that a migration in space can include migrating the reservation to resources in a new compute environment (i.e., less RAM and more CPUs) that can provide better performance for a job consumed in association with a request for resources. Accordingly, inasmuch as the context of the present invention involves future looking analysis of the compute environment prior to resources actually being consumed, Applicant submits that this claim is appropriately definite and particularly points out and distinctly claims the subject matter.

With regards to claims 25, 34 and 35, Applicant submits that although the term "will" is used, Applicant submit that the limitation is definite and does particularly point out and distinctly claim the subject matter of the claim. These claims are essentially "if then" clauses. This basic concept of determining if an event occurs then a step is taken, of course, is a very common programming tool. Claim 25 recites if the job submitted within the reservation will extend beyond the reservation, the job further comprises cancelling the job. This is simply the step of determining whether the job that would be submitted within a reservation would extend beyond the reservation in some manner. An example of this is if a reservation is for resources for a 30-minute period of time and after that reservation is made it is determined that a job submitted to a compute environment that is associated with that reservation would require 45-minutes to process based on the, for example, capacity of the compute environment to process the job, then the method further comprises cancelling the job. Applicant submits that this is in the context of the workload management processes in which claim 25 operates. Applicant therefore submits that it is sufficiently definite to use the term "will" in claim 25.

Similarly, claim 34 recites wherein if a received consumption job associated with the personal reservation will exceed the window of time for the reservation of compute resources, then the method comprises cancelling and locking out the personal reservation from access to the

compute resources. The example set forth above also applies to claim 34 where it is a basic "if then" construction that determines if a first event happens, then the method comprises taking certain steps. Applicant submits that this claim is sufficiently definite and complies with 35 U.S.C. §112.

Claim 35 recites again a similar construction. If a received consumption job associated with a personal reservation will exceed the window of time, then the method comprises never starting the consumption job. Again, this is a basic construct that is sufficiently definite in terms of analyzing what will happen in the compute environment if the job is submitted to the compute environment based on that knowledge, taking certain steps.

Claim 29 is amended to eliminate the word "can". This claim now recites that the request for resources in a compute environment comprises a reservation of resources for a window of time in which at least one user submits personal reservations. Accordingly, Application requests withdrawal of the rejection to this claim. Claim 32 is also amended to recite wherein the periodic window of time is daily, monthly, quarterly or yearly. Accordingly, Applicant requests withdrawal of this rejection. Claim 36 also is amended as suggested in the Office Action to recite that the step of presenting to a user who submitted the personal reservation and option of allowing the jobs running in the personal reservation to complete although a time for completing the running jobs is beyond the window of time for the user's reservation of compute resources. Accordingly, Applicant respectfully requests withdrawal of the rejection of this claim. Claim 37 is unamended and recites again the basic "if then" construct. This claim requires, if the job submitted in the personal reservation would exceed the personal reservation, extending the personal reservation to meet the needs of the job. Again, this is a forward looking "if then" construct in which the method involves determining that after personal reservation is made if the job submitted under the personal reservation would exceed the personal reservation in some

manner, then the method involves extending the personal reservation to meet the needs of the job. This is an appropriate step that is definite and the scope of which would be understood by one of skill in the art. Claim 16 is amended to recite that the method further comprises dynamically modifying the compute environment to process jobs submitted in the reservation using a modified compute environment relative to a configuration of the compute environment when the request for a reservation is received. Accordingly, Applicant submits that this clearly delineates the scope of the invention and is thus in compliance with 35 U.S.C. §112.

Claim 20 is amended to provide antecedent basis for an earliest time possible. The claim recites wherein the migration in time seeks to create a reservation at an earliest time possible. Applicant submits that the term "earliest" is not a relative term but is definite within the claim. For example, the software, when migrating a reservation of time, may seek to create a reservation at the earliest time that is possible within the compute environment. An example of which may be, after reservation is made, another reservation may be cancelled or resources may become available such that the compute environment has changed and the migration in time involves the process of creating a new reservation that may fill some of the earlier available reservation space or available resources. Applicant submits that this is not a relative term but the scope of this is definite and Applicant submits that this claim is in compliance with 35 U.S.C. §112.

On page 4 of the Office Action, it asserts that the term "better" in claim 21 is a relative term. Applicant believes that the Examiner is referencing actually claim 19 which recites that the new resources better meet needs associated with the request for resources. Applicant has amended this claim to recite that the new resources better meet the needs associated with the request for resources then original resources for the request for resources. Accordingly, applicant submits that there is an example of this is actually articulated above wherein original

resources for a request for resources may involve, for example, 20GB of memory and 2 processors, wherein after the system migrates reservation to new resources, the new resources may, for example, have 10GB of RAM and 4 processors which better meet the needs associated with the request for resources. Applicants submit that in the context of the disclosure and the processes disclosed herein that this claim is definite and in compliance with 35 U.S.C. §112.

Applicants also note that the antecedent basis issue with regards to claim 20 and the term "the earliest time" is addressed as noted above.

Rejection of Claims 1-5, 8-21, 24-27, 29-37 and 44-47 Under 35 U.S.C. §102(e)

The Office Action rejects claims 1-5, 8-21, 24-27, 29-37 and 44-47 under 35 U.S.C. §102(e) as being anticipated by Kaufman et al. (U.S. Patent Publication No. 2004/0244006) ("Kaufman et al."). Applicant respectfully traverses this rejection and note that when the fundamental teachings of Kaufman et al. are studied, that we shall see that they actually teach away from the present invention and illustrate how novel the present invention is.

Claim 1 recites a method of dynamically modifying resources within a compute environment comprising a plurality of compute nodes under common administrative control, the method includes receiving a request for resources in the compute environment and monitoring events after receiving the request for resources and based on the monitored events, dynamically modifying at least one of the request for resources and the compute environment. Applicant notes that the request for resources here differs from the actual jobs that are submitted based on the request. For example, the request for resources again is an advanced process in which a user would request certain resources to process a job tomorrow at 2pm. Thus, at a higher level, the software will analyze the resources and either dynamically modifies the request for resources or the compute environment in order to process the job which comes at a future time. Applicant shall discuss the teachings of Kaufman et al. and why they fundamentally differ from the present

invention. Kaufman et al. disclose a system that performs distributed parallel computing tasks. They have an invention that relates to a method wherein connected problems can automatically be partitioned, populated and deployed to a distributed system and then automatically repartitioned to balance the compute load. See paragraph [0002]. A review of the background of their invention identifies the issue that their invention addresses. For example, there may be a research study that is quite large that it cannot be solved on a single computer. They explain that conceptionally it is possible to divide a Cartesian region associated with the study into partitions or collections of "original problem cells" or OPCs. Since each cell contains all the data, methods and pointers to interacting neighbors within the Cartesian region, it needs to perform an onsite calculation and the problem can be highly parallelizable. See paragraph 21. They then take these problem cells and distribute them into a grid infrastructure for processing. They explain in paragraph [0027] that once a problem is distributed on a grid, balancing the progress of the problem amongst all its pieces becomes an issue. They explain that the current grid technology resizes problem pieces which are referred to as variable problem partitions or VPPs by moving individual elements (the OPCs) from one VPP to another. They explain that this technique is inefficient as it changes the design of the problem and causes a recalculation of the problem edges that can cause a significant increase in communication costs if the piece edges roughen. See paragraphs [0027] and [0028]. They then explain in paragraph [0030] that the system should also be able to dynamically optimize the complexity of problem pieces to match the changing landscape of compute node capability on the grid.

Fundamentally, Applicant shall explain that what Kaufman et al. teach is modifying these VPPs and/or the OPCs which involve manipulating the actual job that is being computed. Applicant submits that this fundamentally differs from the concept of claim 1 which involves dynamically modifying a request for resources or the compute environment itself. In this regard,

there is no teaching in Kaufman et al. regarding a request for resources in the compute environment inasmuch as they jump directly to the submission of the problem on the grid. This is noted again in paragraph [0027] in which they state "once problem is distributed on a grid, balancing the progress of the problem among all its pieces becomes an issue." Thus, they have already made it to the stage of the problem being of resources being consumed in the grid environment.

Applicant also notes that they actually teach away from the present invention in which they state in paragraph [0034] under the Summary of the Invention, that "philosophically, the present system makes the assumption that full administrative control is not maintained over the available compute nodes. These nodes may be subject to unknowable and unpredictable loads." In other words, this teaches away from the present invention because they assume here that they do not have administrative control over available compute nodes and thus, the ability to modify the compute environment is assumed not to exist in the Kaufman et al. invention. The Kaufman et al. invention involves the manipulation of the OPC collections that may be held in a variable problem partition (VPP), which is the amount of the problem that is delivered to one compute agent may be solved. In other words, under the Summary of the Invention starting at paragraph [0031] and through paragraph [0045], they explain that their system provides a dynamic load balancing which dynamically resizes the partition based on the capability of the available resources. They explain that the capability of the individual computers is available for processing and that because in a grid, machines are different and loads are unpredictable, their system adapts the problem to the capability of the network. See paragraph [0040]. Again, this fundamentally teaches away from the present invention in which they necessarily dynamically resize the partitions associated with the job based on the capability of the available resources. The invention is different in that it is not the job itself that is modified but it is the request for

resources or the compute environment itself that is dynamically modified. Because Kaufman et al. expressly teaches that it is not the compute environment that may be modified but the problem that is distributed on the grid that is dynamically resized in its partitions, Applicant submits that claim 1 is not only novel but certainly non-obvious in view of the teachings of Kaufman et al. Applicants have made one minor amendment to claim 1 in which the compute environment comprises a plurality of compute nodes under common administrative control. This is of course necessary if one is to actually modify the compute environment. This again directly distances the invention of claim 1 from the teachings of Kaufman et al. in paragraph [0034] in which they present a system wherein the assumption is that full administrative control is not maintained over the available compute notes. Accordingly, Applicant submits for this additional reason that claim 1 is patentable and in condition for allowance.

Accordingly, Applicant submits that the concept of receiving a request for resources in the compute environment wherein the request itself or the compute environment may be dynamically modified is not taught or suggested in Kaufman et al. Accordingly, Applicants submit that dependent claims 2-37 are patentable and in condition for allowance. Claims 44-47 are amended in a manner similar to claim 1. Accordingly, Applicant submits that Kaufman et al. fail to teach each limitation of these claims.

Rejection of Claims 1-5, 8-21, 24-27, 29-37 and 44-47 Under 35 U.S.C. §102(e)

The Office Action rejects claims 1-5, 8-21, 24-27, 29-37 and 44-47 under 35 U.S.C. §102(e) as being anticipated by Talwar et al. (U.S. Patent Publication No. 2004/0139202) ("Talwar et al."). Applicant respectfully traverses this rejection and submits that the only portion of Talwar et al. cited in the Office Action is at "column 2." Applicant assumes that column 2 references page 2 in that there are no column numbers in the published application. Assuming that to be the case, Applicant has reviewed page 2 and submit that nothing in this portion of

Talwar et al. teaches monitoring events after received after request for resources and based on the monitored event dynamically modifying at least one of the request for resources and the compute environment. What is taught in this reference is a grid interactive shell 230 that restricts access permission to execute request applications and commands submitted interactively by an end user. See paragraph [0023]. The system and session information enables a grid interactive shell 230 to make access control decisions based on dynamic information gathered from the system. See paragraph [0024]. The grid interactive shell 310 accepts commands from a user for execution. It accepts a request to execute applications that are already installed on remote machine by a system administrator and may also accept requests to execute applications that are not already installed that are user specified binary files. See paragraph [0026]. The end user submits a request, which is then passed to an access control subsystem 340 which performs access control checks. If one or more access control checks fail, a failure message is returned back to the user and a request to start the application and/or demand is denied. If the access control subsystem checks succeed, then the command and/or application is started by the grid interactive shell and the graphical output can be viewed through a remote graphical display.

Paragraph [0031] teaches also that there is a quality of service access module that determines if the requested application would not violate quality of service guarantees. If the requested application cannot be provided with sufficient system resources, the quality of services access module may deny access to the execution of the application and notify the user of the failure. Applicant notes that there is nothing that Applicant can see in this reference regarding dynamically modifying the compute environment based on monitored events after receiving the request for resources and Applicant respectfully submits that the scope of the teachings with regard to the grid interactive shell 230 and the access control subsystem modules is limited to the simple process of providing a "access control" check wherein if the check is failure then the user

access is denied. In other words, when the end user submits a request to start a command or application in the grid interactive shell 310, the response from the access control checks either allows the access or denies the access. There is no discussion or suggestion within Talwar et al. regarding dynamically modifying the request for resources. As noted above, there is also no suggestion with regards to dynamically modifying the compute environment based on the monitored events after receiving the request for resources. Thus, Applicants respectfully submit that parent claim 1 is patentable over Talwar et al. as well as its dependent claims 2-37. Claims 44-47 are patentable for the same reasons set forth above.

Rejection of Claims 1-5, 8-21, 24-27, 29-37 and 44-47 Under 35 U.S.C. §102(e)

The Office Action rejects claims 1-5, 8-21, 24-27, 29-37 and 44-47 under 35 U.S.C. §102(e) as being anticipated by Naik et al. (U.S. Patent Publication No. 2006/0294238) ("Naik et al."). Applicant also traverses the rejection of these claims as being anticipated by Naik et al.

Naik et al. relate to disclose an invention that relates to controlling a participation and performance management of a distributed set of resources in a grid environment. Their invention involves forecasting the behavior of a group of shared resources and their ability and quality of their performance in the presence of external policies governing their usage and deciding the suitability of their participation in a grid computation. See paragraph [0002]. They explain under their Summary of the Invention that the resources on grid related systems are used according to policies set by owners and users of the system. At any given instance, multiple local policies may exist and these may dynamically affect the availability of the resources to the grid. They explain the key components of their present invention in paragraphs [0026] through [0031]. These include how to share distributed set of resources while conforming to local resource usage polices, predicting future events and the state of the resources by using targeted monitoring and analysis, increasing the accuracy of the forecast about the future state of the

computing resources, an apparatus for centralized application of policies to predict the state of the distributed resources that are to be shared. Methods for reducing the uncertainties in the availability of individual resources because of inaccuracies in the forecasting models or because of the unexpected changes in the policies by using aggregation techniques and by using just-in-time scheduling and routing of grid client requests to the best available grid resources, and a hierarchical grid resource management system that provides grid services with certain minimum level of service guarantees using resources that have inherent uncertainties in their predicted quality available for grid computations. Applicant notes that the rest of the teachings on page 3 (again, Applicant assumes that "col. 3" is referring to page 3 of the published application of Naik et al.) do not appear to teach the basic features of the invention. For example, there appears to be no discussion regarding what to do with a received request for resources in a compute environment or monitoring events after receiving the request. Furthermore, Applicant sees nothing with regards to dynamically modifying at least one of the requests for resources and the compute environment. In fact, this reference appears to also assume that it is unable to dynamically modify the compute environment. Fundamental in that the context of Naik et al. is a grid that is composed of shared resources from computing systems that are primarily deployed for performing non-grid related computations. See paragraph [0023]. In other words, the amendments to claim 1 in which the compute environment comprises a plurality of compute nodes under common administrative control necessarily distinguishes the present invention from the concepts that are taught within Naik et al. which assume as a given that their grid is composed of computing systems that are outside of any kind of common administrative control. They extensively discuss in the description of the prior art and introduction of their invention the issue of resources that can be shared with grid computations that include notebooks, PCs, desktop PCs and backend servers, web servers and so forth that are deployed throughout various

systems but not under common control. See, e.g., paragraph [0015]. Accordingly, Applicant submits that for this reason as well as the other reasons that there is no teachings with regard to modifying that compute environment inasmuch as there is no control over that compute environment and other limitations such as receiving requests for resources in a compute environment are limitations that are not taught or suggested by Naik et al. Accordingly, Applicant submits that claim 1 and dependent claims 2-37 as well as claims 44-47 are patentable and in condition for allowance.

Rejection of Claims 1-5, 8-21, 24-27, 29-37 and 44-47 Under 35 U.S.C. §102(b)

The Office Action rejects claims 1-5, 8-21, 24-27, 29-37 and 44-47 under 35 U.S.C. §102(b) as being anticipated by Lumelsky et al. (U.S. Patent No. 6,463,454) ("Lumelsky et al."). Applicant respectfully traverses this rejection and submits that Lumelsky et al. fail to teach each limitation of the claims.

Columns 6 and 7 of Lumelsky et al. summarize their invention as providing a system and method for managing and controlling the distribution, shared and pulling of resources in an internet worldwide environment. They implement an intermediate control node between clients and service for managing the distribution and placement of requests for multimedia objects onto servers as well as managing the placement of objects onto servers according to a set criteria. See column 6, lines 21-28. According to the principles of their invention, the intermediate control node is provided between clients and servers. Clients are typically web browsers and the servers are simply media or web servers. The control node provides the management and distribution placement of requests onto servers as well as managing the placement of content on the servers. The controller therefore explores, negotiates and recommends placements of requests onto servers on behalf of a client. Although the word "dynamically" is used in paragraph [0007], line 4, the intermediate control node in the present case relies on a capacity shaping mechanism for

dynamically controlling the placement and number of objects on servers. They rely on two complementary notions. First, a global server that provides a spare, shared and highly available capacity and a transient replica that models a multimedia object as a scalable and relocatable resource that responds to command and capacity conditions. Together these concepts provide a system that may be used to assist a multimedia server by temporarily increasing the overall system capacity to match the predicted demand associated with a particular multimedia object. Applicant notes that because the intermediate node is fundamentally between a web browser and a server it conceptually does not involve receiving a request for resources in the compute environment. In other words, when a user interacts via a web browser with the internet, the user does not submit a request for resources in the compute environment, they just are interacting with whatever particular web page is there.

Accordingly, Applicant submits that the concept of using a web browser does not involve submitting requests for resources in a compute environment. Furthermore, Applicant submits that the world wide web environment does not involve, based on monitored events, dynamically modifying at least one of the requests for resources in a compute environment. Notably, there is certainly no suggestion in Columns 6 and 7 of the information coming from the web browser being modified based on monitored events. Furthermore, the intermediate control node sits in between the web client and the servers and simply submits and manages the placement of requests onto the servers. Accordingly, the intermediate control node in between the web browser and the web server is not taught as doing anything with regard to modifying the compute environment based on monitored events but rather appears to be expressly be taught as being a negotiator and a recommenders of placements of requests onto servers on behalf of the client. Thus, Applicant respectfully submits that it is fairly fundamental with regards to both the placement of the intermediate control node which is the invention of Lumelsky et al. in between

the client and the servers with regards to the fact that that intermediate node, as an intermediate negotiator, and recommender of placing requests onto servers on behalf of the client, cannot and does not do anything with regards to dynamically modifying at least one of the requests for resources and the compute environment. Accordingly, Applicant submits that Lumelsky et al. teach something that fundamentally has a purpose of not dynamically modifying requests for the compute environment in between which it sits, but is merely meant to be an intermediary between these two network elements. Accordingly, Applicant respectfully submits that Lumelsky et al. also fail to teach each limitation of the claims and that claims 1 and dependent claims 2-37 and claims 44-47 are patentable and in condition for allowance.

Rejection of Claims 6, 7, 22, 23 and 28 Under 35 U.S.C. §103(a)

The Office Action rejects claims 6, 7, 22, 23 and 28 under 35 U.S.C. §103(a) as being unpatentable over Kaufman et al. Applicant respectfully traverses the Official Notice and notes that the concept of a request for direct access/for direct volume access/a virtual private cluster is not well known and expected in the art. This is easily shown by way of referencing Kaufmann et al., paragraph [0029]. Here, Kaufman et al. explain that "grid computing is still in its infancy." They also state in this paragraph "although problems solved by group computing are often very sophisticated, the problem management software today is still quite primitive." They explain that existing grid software manages the movement of problem pieces from machine-to-machine but does not provide sophisticated management of the problem pieces and does not account for correlations between problem pieces and does not provide representation between problem piece requirements and does not adapt the problem itself to dynamic changes in available computing resources. Accordingly, Applicants submit that rather than the concept of wherein the request for resources is a request for direct volume access or a request for a virtual private cluster being the subject of Official Notice, Applicants submit that at the time of the invention grid computing

was still quite in its infancy and thus, it is inappropriate to take official notice of such concepts. It is further inappropriate to take official notice of such features inasmuch as Kaufman et al. fail to teach anything regarding a request for resources in the request environment as discussed earlier. Accordingly, a request for direct volume access and a request for a virtual private cluster should not be considered well known to the dramatic extent to justify taking Official Notice. Furthermore, Applicant notes that because claims 6 and 7 each depend from claim 1 and recite further limitations therefrom, Applicant submits that they are patentable and non-obvious for this reason as well.

With regards to claims 22 and 23, Applicant also traverses the taking of Official Notice. The concept of migrating a reservation to resources that provide better performance and according to a projected failure of resources was not well known to those of skill in the art. This is for several reasons. First, as noted above, it is assumed in Kaufman et al. that there is not full administrative control over available compute nodes. Paragraph [0034]. Furthermore, claims 22 and 23 further modify the request for resources as a migration of a reservation to be associated with new resources. Kaufman et al. do not discuss anything regarding the reservation process as being part of a request for resources. This is a concept that is a novel and actually invented by Applicant. Claims 22 and 23 each depend from claim 18, which depends from claim 17, which introduces this concept of the reservation being migrated to be associated with new resources. Accordingly, Applicant submits that because Kaufman et al. fail to teach anything regarding a reservation of resources and further fail to teach anything regarding the migration of a reservation in space, and furthermore because as it has been noted that grid computing was still in its infancy at the time of the present invention, Applicant submits that it is inappropriate for such a complex process involving such complex compute environments that Official Notice should be taken as to such a feature. Page 38 also notes that the assertion that it would be

obvious to one of ordinary skill in the art to include the migration of reservation of resources to provide better performance or according to a failure of projected failure resources that such well known techniques of migrating reservations for resources would support the replacement of the resources that are needed by the requested party. The replacement of the resources that do not necessarily provide performance or that are failed with support handling the reservation for the compute environment. Applicant disputes these teachings that such "well known techniques" could be employed. Applicant respectfully note that Applicant has worked for over ten years on these concepts and that Kaufman et al. certainly tell the story of the progress of the inherently complex environment of grid computing. Because this is certainly not a mature area of art, Applicant submits that there were not "well known techniques" of migrating a reservation for resources from one compute environment to a new compute environment. Applicant has both developed the software and invented the concept and respectfully submits that the taking of official notice for such concepts is inappropriate in this complex area of art.

With regards to claim 28, Applicant traverses the taking of Official Notice that the concept and advantage of presenting to the entity with the option of extending the reservation, a pricing option to extend the reservation. Again, Applicant submits that the concept of a reservation is not taught in Kaufman et al. and therefore, the features of claim 28 which depends from claims 27, 26, 25 and 24 is further not taught or suggested in the art. Applicant again notes that this is an inappropriate limitation for Official Notice. Applicant notes that MPEP 2144.03 requires that such a circumstance to take official notice is rare when application is not supported by documentary evidence and should only be taken by the Examiner where facts assert it be well known or to be common knowledge in the art or capable of instant and unquestionable demonstration as being well known. Applicant respectfully submits that again because of the complex nature of group computing and even highly competitive companies such as IBM noting

how grid computing is still in its infancy as is noted in paragraph [0029] of Kaufman et al. and even describes the problem software management as "quite primitive", that the particular features of dealing with providing an option of extending a reservation that includes a pricing option to extend the reservation in the context of claims 1 and 24-28, is not the kind of concept that is capable of instant and unquestionable demonstration as being well known. Applicant would respectfully submit that these are not the kinds of features with regards to managing migration of reservations that lend themselves to be instant and unquestionably demonstrated so as to defy dispute.

The examples in the MPEP easily establish Applicant's position. They state "it is old to adjust intensity of a flame in accordance with the heat requirement". I think it goes without saying that the concepts dealing with adjusting a flame goes back thousands of years, whereas the concepts involved in grid computing are even now "quite primitive". Furthermore, another quote from this section of the MPEP states that "judicial notice of the fact that tape recorders commonly erase tape automatically when new 'audio information' is recorded on a tape which already has a recording on it". These are experiences that people in their every day life come across and thus Applicant submits that these examples illustrate the types of things that are appropriate for Official Notice. In the context of the present invention, we would necessarily require clear documentary evidence (which Applicant submits will be very difficult to find if not impossible) to establish the necessary requirements of taking Official Notice of any concept associated with the migration of reservations in a compute environment as is recited in the claims.

Rejection of Claims 6, 7, 22, 23 and 28 Under 35 U.S.C. §103(a)

The Office Action rejects claims 6, 7, 22, 23 and 28 under 35 U.S.C. §103(a) as being unpatentable over Talwar et al. Applicant respectfully incorporate the arguments set forth above

relative to the inappropriateness of taking Official Notice of such complex concepts in grid computing where the management software is articulated by a company like IBM to be still "quite primitive". Accordingly, Applicant submits that the combination of the discussion above relative to the teachings of Talwar et al. in connection with the inappropriateness of taking official notice of these concepts render claims 6, 7, 22, 23 and 28 as patentable and in condition for allowance.

Rejection of Claims 6, 7, 22, 23 and 28 Under 35 U.S.C. §103(a)

The Office Action rejects claims 6, 7, 22, 23 and 28 under 35 U.S.C. §103(a) as being unpatentable over Naik et al. Applicant respectfully traverses this rejection and again incorporate the discussion above relative to the teachings of Naik et al. and the discussion of the inappropriateness of taking Official Notice of these particular features and submit that for these various reasons that claims 6, 7, 22, 23 and 28 are patentable and in condition for allowance.

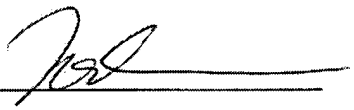
Applicants will likely schedule an interview with the Examiner to further discuss this case.

CONCLUSION

Having addressed all rejections and objections, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited. If necessary, the Commissioner for Patents is authorized to charge or credit the **Novak, Druce & Quigg, LLP, Account No. 14-1437** for any deficiency or overpayment.

Respectfully submitted,

Date: December 21, 2007

By: 

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